

Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1. (withdrawn) A method of mirroring security processors comprising the steps of:

generating information for a first security processor;
repeatedly sending the information to a second security processor in accordance with the first security processor processing at least one packet.

2. (withdrawn) The method of claim 1 wherein the sending step comprises sending the information from the first security processor to the second processor.

3. (withdrawn) The method of claim 1 wherein the generating step comprises generating the information in the first security processor.

4. (withdrawn) The method of claim 1 further comprising the step of generating at least one packet including the information, wherein the sending step comprises sending the at least one packet over a packet network.

5. (withdrawn) The method of claim 1 wherein the sending step further comprises sending the information over a dedicated link between the first security processor and the second security processor.

6. (withdrawn) The method of claim 5 wherein the dedicated link comprises an Ethernet link.

7. (withdrawn) The method of claim 1 wherein the sending step comprises repeatedly sending the information on a per-packet basis.

8. (withdrawn) The method of claim 1 wherein the sending step comprises repeatedly sending the information at intervals according to at least one sequence number.

9. (withdrawn) A method of mirroring security processors comprising the steps of:

generating security association information for a first security processor;
and

repeatedly sending the security association information to a second security processor in accordance with the first security processor processing at least one packet.

10. (withdrawn) The method of claim 9 wherein the information comprises at least one security association sequence number.

11. (withdrawn) The method of claim 9 wherein the information comprises at least one security association byte count.

12. (withdrawn) The method of claim 9 wherein the sending step further comprises repeatedly sending the security association information on a per-packet basis.

13. (withdrawn) The method of claim 9 wherein the sending step further comprises repeatedly sending the security association information at intervals according to at least one sequence number.

14. (withdrawn) The method of claim 9 further comprising the step of generating at least one packet including the security association information, wherein the sending step comprises sending the at least one packet.

15. (withdrawn) The method of claim 9 further comprising the step of generating at least one packet including the security association information, wherein the sending step comprises sending the at least one packet over a packet network.

16. (withdrawn) The method of claim 9 wherein the sending step further comprises sending the information over a dedicated link between the first security processor and the second security processor.

17. (withdrawn) The method of claim 16 wherein the dedicated link comprises an Ethernet link.

18. (currently amended) A method of providing redundancy in a security processing system comprising the steps of:

establishing a first secure packet flow through a first mirrored security processor;

updating security association information associated with the first secure packet flow;

establishing a second secure packet flow through a second mirrored security processor;

updating security association information associated with the second secure packet flow;

sending the updated security association information associated with the first secure packet flow from the first mirrored security processor to the second security mirrored processor in a first update packet having a custom routing header configured to allow routing of the first update packet through mirrored security processors, wherein first update packet is sent at a first predefined interval;

sending the updated security association information associated with the second secure packet flow for the second mirrored security processor to the first mirrored security processor in a second update packet having a custom routing header configured to allow routing of the second update packet through mirrored security processors, wherein second update packet is sent at a second predefined interval; and

storing the updated security association information associated with the first secure packet flow and the updated security association information associated with the second secure packet flow in the first mirrored security processor and in the

second mirrored security processor.

19. (currently amended) The method of claim 45 wherein the rerouting step is in response to a failure of packet flow through the first mirrored security processor.

20. (canceled).

21. (currently amended) The method of claim 18 wherein the ~~security association information~~ the custom routing header comprises ~~a~~ at least one sequence number, wherein the sequence number is incremented when an update packet is received from or transmitted to a network.

22. (currently amended) The method of claim 18 wherein the ~~security association information~~ the custom routing header comprises ~~a~~ at least one byte count.

23. (canceled)

24. (currently amended) The method of claim 18 wherein sending the updated security association information from the first mirrored security processor to the second mirrored security processor further comprises sending the update to the security association information at the first predefined interval based on at least one sequence number associated with the security association information.

25. (currently amended) The method of claim 18 further comprising the step of generating at least one configuration packet including the security association information, wherein sending the updated security association information from the first mirrored security processor to the second mirrored security processor comprises sending the at least one configuration packet.

26. (currently amended) The method of claim 18 further comprising the step of sending, by a host processor, configuration information to the first mirrored security processor and the second mirrored security processor.

27. (currently amended) The method of claim 18 further comprising the step of sending, by a host processor, security association configuration information to the first mirrored security processor and the second mirrored security processor.

28. (canceled)

29. (currently amended) The method of claim 18 further comprising the steps of:

defining a quantity to adjust a sequence number;
defining an interval at which to update the security association information; and
determining whether to send the security association information to the second mirrored security processor according to a comparison of a sequence number

with the interval.

30. (currently amended) The method of claim 29 further comprising adding the quantity to the sequence number before sending the security association information to the second mirrored security processor.

31-33. (canceled)

34. (currently amended) The method of claim 18 further comprising the step of sending replay window information to the second mirrored security processor.

35. (withdrawn) A security processing system, comprising:
a first security processor for processing packets and for updating security association information associated with the packets, the first security processor comprising at least one MAC for sending updated security association information over a packet network; and
a second security processor for receiving the updated security association information over the packet network.

36. (withdrawn) The security processing system of claim 35 further comprising at least one host processor connected to the first security processor and the second security processor for terminating or initiating the packets.

37.(withdrawn) The security processing system of claim 36 wherein the at least one host processor changes the routing of packet flow by either routing the packets to the second security processor instead of the first security processor.

38. (currently amended) A security processing system, comprising:

 a first mirrored security processor configured to process a first packet flow, and update security association information in response to the first packet flow, and send the updated security association information associated with the first packet flow in a first update packet having a custom routing header configured to allow routing of the first update packet through mirrored security processors; and

 a second mirrored security processor configured to process a second packet flow, and update security association information in response to the second packet flow, and send the updated security association information associated with the second packet flow in a second update packet having a custom routing header configured to allow routing of the second update packet through mirrored security processors,

 wherein the first mirrored security processor is further configured to send the updated security association information in response to the first packet flow to the second mirrored security processor at a first predefined interval and the second mirrored security processor is further configured to send the updated security association information in response to the second packet flow to the first mirrored security processor.

39. (previously presented) The security processing system of claim 46 further comprising at least one host processor connected to the at least one switch for terminating or initiating the first packet flow and the second packet flow.

40. (currently amended) The security processing system of claim 39 wherein the at least one host processor changes the routing of packet flow by either routing the first packet flow to the second mirrored security processor instead of the first mirrored security processor or routing the second packet flow to the first mirrored security processor instead of the second mirrored security processor.

41. (currently amended) The security processing system of claim 40 wherein the change in the routing is in response to a failure of the first packet flow through the first mirrored security processor or the second packet flow through the second mirrored security processor.

42. (canceled)

43. (currently amended) The security processing system of claim 47 wherein the at least one host processor routes the first packet flow to the second security mirrored processor instead of the first security processor.

44. (currently amended) The security processing system of claim 48 wherein the at least one host processor routes the second packet flow to the first mirrored

security processor instead of the second mirrored security processor.

45. (currently amended) The method of claim 18, further comprising:
rerouting the secure packet flow to flow through the second mirrored
security processor instead of the first mirrored security processor

46. (currently amended) The security processing system of claim 38, further
comprising:

at least one host processor for establishing a first packet flow to [[a]] the
first mirrored security processor and a second packet flow to [[a]] the second mirrored
security processor;